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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,476	12/21/2005	Ulrike Hees	268082US0PCT	8176
22850	7590	12/05/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
NGUYEN, TRI V				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
12/05/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/529,476

Applicant(s)

HEES ET AL.

Examiner

TRI V. NGUYEN

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5-13 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-13, 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Upon entry of the amendment filed on 08/21/08, Claim 1 is amended and Claims 2-4, 14 and 15 are cancelled. The currently pending claims considered below are Claims 1, 5-13 and 16-22.

Applicants' remarks and amendments have been carefully considered; however, they were not found to be persuasive and do not put the application in condition for allowance – the 103(a) rejections are maintained.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 5 and 7 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 and 5-6 of U.S. Patent No. 6,607,565 in view of Mischke et al. (US 5,508,389). Claims 1-2 and 5-6 of the '565 reference are an inkjet printing

and a sublimation transfer printing respectively. The '565 reference fails to teach the molecular weight component B. The Mischke et al. reference disclose a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000. It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product to arrive at the desired viscosity prevention absent of unexpected results.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 5-12 and 16-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hermann et al. in view of Mischke et al. or Buhler et al.

Hermann et al. disclose an inkjet process and a sublimation transfer printing on a textile with a composition comprising 0.1 to 30% by weight of an anthraquinone or quinophthalone which are free from ionic groups dye (component A), 0.1 to 20% by weight of a dispersant (component B), 10 to 90% by weight of a mono- or polyhydric alcohol and optionally water (see abstract). Hermann et al. disclose the product of naphthalenesulfonic acid and formaldehyde condensation as component B (col 4, lines 33 et seq.). Herman et al. disclose the customary agents such as foam inhibitors in the amounts of 1% by weight or less 9 (col 7, lines 15-21). Hermann et al. disclose the dyes of formula (I) and (II) in the composition (see col 1 and 2). Hermann et al. disclose the product of naphthalenesulfonic acid and formaldehyde condensation as component B (col 4, lines 29 et seq.). Herman et al. disclose the polyol component such as polyethylene glycol (col 5, lines 17-58 and col 7), a surface tension of 30 to 70 Nm/m (col 7, lines 39-41), a viscosity range of 1 to 4 mm²/sec (col 7, lines 36-38) and a pH ranging from 5 to 11 (col 7, lines 42-44).

However, Herrmann et al. do not explicitly disclose a composition that includes component B with an average molecular weight of at least 11 000g/mol and the components in the amounts as those recited by the Applicant.

In an analogous art, Mischke et al. show that dispersants from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000 are well known (Mischke: col 3, line 21 et seq.). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Herrmann et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Herrmann et al. to arrive at the desired viscosity prevention absent of unexpected results.

Regarding the percentage amounts of the components and ranges in the experimental conditions and properties, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie

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inside ranges disclosed by the prior art", see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff*, 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

5. Claims 1, 5-12, 16-17 and 19-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel et al. in view of Mischke et al. or Buhler et al.

Siegel et al. disclose an inkjet process and a sublimation transfer printing on a textile with a composition comprising 0.1 to 30% by weight of an anthraquinone or quinophthalone which are free from ionic groups dye (component A), 0.1 to 20% by weight of a dispersant (component B), 0.1 to 30% by weight of a mono- or polyhydric alcohol and optionally water (see abstract and col 5, lines 17 et seq.). Siegel et al. disclose the customary agents such as foam inhibitors in the amounts of 1% by weight or less (col 7, lines 15-21). Siegel et al. disclose the dyes of formula (I) and (II) in the composition (see col 1 and 2). Siegel et al. disclose the product of naphthalenesulfonic acid and formaldehyde condensation as component B (col 4, lines 29 et seq.). Siegel et al. disclose the polyol component such as polyethylene glycol (col 5, lines 17-58 and col 7), a surface tension of 30 to 70 Nm/m (col 7, lines 39-41), a viscosity range of 1 to 4 mm²/sec (col 7, lines 36-38) and a pH ranging from 5 to 11 (col 7, lines 42-44).

However, Siegel et al. do not explicitly disclose a composition that includes component B with an average molecular weight of at least 11 000 g/mol and the components in the amounts as those recited by the Applicant.

In an analogous art, Mischke et al. show that dispersants from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000 are well known (Mischke: col 3, line 21 et seq.). It would have been obvious to a skilled artisan to

optimize the molecular weight of the condensation product of Siegel et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Siegel et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Herrmann et al. to arrive at the desired viscosity prevention absent of unexpected results. Regarding the percentage amounts of the components and ranges in the experimental conditions and properties, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the

prior art", see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff*, 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

6. Claims 1, 5-12 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuo et al. in view of Hermann et al. and Mischke et al. or Buhler et al.

Kazuo et al. disclose a inkjet printing process with a composition that includes a disperse dye such as anthraquinone or azo-based (component A), a naphthalenesulfonic acid and formaldehyde condensation product (component B), a glycol (component C), viscosity additives (Component D) and water (see abstract and page 2, parag. 11-15).

However, Kazuo et al. do not explicitly disclose a composition that includes component B with an average molecular weight of at least 11 000 g/mol, the various dyes and the components in the amounts as those recited by the Applicant.

In an analogous art, Mischke et al. show that dispersants from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000 are well known (Mischke: col 3, line 21 et seq.). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Kazuo et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Kazuo et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Hermann et al. disclose the dyes of formula I and II (see col 1 and 2), the polyol component such as polyethylene glycol (col 5, lines 17-58 and col 7), a surface

tension of 30 to 70 Nm/m (col 7, lines 39-41), a viscosity range of 1 to 4 mm²/sec (col 7, lines 36-38) and a pH ranging from 5 to 11 (col 7, lines 42-44). The claims would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of a skilled artisan.

Regarding the percentage amounts of the components and ranges in the experimental conditions and properties, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff*, 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

7. Claim 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel et al., Hermann et al. or Kazuo et al. in view of Mischke or Buhler et al. and further in view of Siemensmeyer et al.

Siegel et al., Hermann et al. or Kazuo et al. and Mischke or Buhler et al. disclose the dye preparation of claim 1 but do not explicitly disclose the azo dye of formula (III). In an analogous art, Siemensmeyer et al. disclose a dye preparation with the azo dye of formula (III)

(see abstract and col. 8). Because the references teach similar dye compositions, the claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Response to Arguments

8. Applicant's arguments filed on 08/21/08 have been fully considered but they are not persuasive. Applicants' argument is directed to a showing of unexpected results to overcome the cited prior arts, especially in the range of 11 000 to 18 000 g/mol (page 8 et seq.). The examiner concurs with applicants that dispersants 4, 5 and 6 are directed to a condensation products of 16 000 g/mol, 18 000 g/mol and 12 000 g/mol respectively thus presenting a range related to the claimed ranges; however, it is noted that, according to MPEP, to "establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range." In re Hill, 284 F.2d 955, 128 USPQ 197 (CCPA 1960). Thus in the instant case, the examiner notes that applicants have shown some data points below the claimed range – 6000 and 9000 g/mol – but have not shown data points above the upper limit of 18 000 g/mol to establish the criticality of the upper limit. Furthermore, it is noted that an extrapolation is still needed to determine the criticality of the lower limit since a data point of closer to 11 000 g/mol is not provided – recall that the closest provided data is 9 000 g/mol which leads to extrapolation over 2 000 g/mol. It is also noted that the results provided are quite subjective – good vs. very good – thus it is quite difficult to reliably determine an unexpected showing vs. a regular improvement obtained via routine optimization.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRI V. NGUYEN whose telephone number is (571)272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. V. N./
Examiner, Art Unit 1796
December 3, 2008

/Lorna M Douyon/
Primary Examiner, Art Unit 1796